FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	AB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

MJ	AC		Abraham et al., "Protection Against *Escherichia coli*-Induced Urinary Tract Infections with Hybridoma Antibodies Directed Against Type 1 Fimbriae or Complementary D-Mannose Receptors," *Infection and Immunity 48*(3): 625-628, June 1985.
	AD		Aizawa et al., "Termini of *Salmonella* Flagellin are Disordered and Become Organized upon Polymerization into Flagellar Filament," *J. Mol. Biol. 211*: 673-677, 1990.
	AE		Allen-Vercoe et al., "SEF17 fimbriae are essential for the convoluted colonial morphology of *Salmonella enteritidis*," *FEMS Microbiology Letters 153*: 33-42, 1997.
	AF		Austin et al., "Thin aggregative fimbriae enhance *Salmonella enteritidis* biofilm formation," *FEMS Microbiology Letters 162*: 295-301, 1998.
	AG		Bakker et al., "K88 fimbriae as carriers of heterologous antigenic determinants," *Microbial Pathogenesis 8*: 343-352, 1990.
	AH		Baumann et al., "Three-dimensional structure of the alkaline protease of *Pseudomonas aeruginosa*: a two-domain protein with a calcium binding parallel beta roll motif," *The EMBO Journal 12*(9): 3357-3364, 1993.
	AI		Baumann et al., "Crystal Structure of a Complex Between *Serratia marcescens* Metallo-protease and an Inhibitor from *Erwinia chrysanthemi*," *J. Mol. Biol. 248*: 653-661, 1995.
	AJ		Baumann, U., "Crystal Structure of the 50 kDa Metallo Protease from *Serratia marcescens*," *J. Mol. Biol. 242*(3): 244-251, 1994.
	AK		Bäumler et al., "Contribution of Horizontal Gene Transfer and Deletion Events to Development of Distinctive Patterns of Fimbrial Operons during Evolution of *Salmonella* Serotypes," *Journal of Bacteriology 179*(2): 317-322, January 1997.
✓	AL		Bäumler and Heffron, "Identification and Sequence Analysis of *lpfABCDE*, a Putative Fimbrial Operon of *Salmonella typhimurium*," *Journal of Bacteriology 177*(8): 2087-2097, April 1995.

EXAMINER Nancy Hao	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	BB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	BC		Bernstein et al., "The Protein Data Bank: A Computer-based Archival File for Macromolecular Structures," *J. Mol. Biol. 112*: 535-542, 1977.
	BD		Bérubé et al., "Repression of Human Immunodeficiency Virus Type 1 Long Terminal Repeat-Driven Gene Expression by Binding of the Virus to Its Primary Cellular Receptor, the CD4 Molecule," *Journal of Virology 70*(6): 4009-4016, June 1996.
	BE		Bian and Normark, "Nucleator function of CsgB for the assembly of adhesive surface organelles in *Escherichia coli*," *The EMBO Journal 16*(19): 5827-5836, 1997.
	BF		Braunagel and Benedik, "The metalloprotease gene of *Serratia marcescens* strain SM6," *Mol. Gen. Genet. 222*: 446-451, 1990.
	BG		Brinton, C.C. Jr., "The Structure, Function, Synthesis and Genetic Control of Bacterial Pili and a Molecular Model for DNA and RNA Transport in Gram Negative Bacteria," *Transactions of the New York Academy of Sciences 27*: 1003-1054, 1965.
	BH		Cárdenas and Clements, "Stability, immunogenicity and expression of foreign antigens in bacterial vaccine vectors," *Vaccine 11*(2): 126-135, 1993.
	BI		Cattozzo et al., "Expression and immunogenicity of V_3 loop epitopes of HIV-1, isolates SC and WMJ2, inserted in *Salmonella* flagellin," *Journal of Biotechnology 56*: 191-203, 1997.
	BJ		Caulcott et al., "Investigation of the Effect of Growth Environment on the Stability of Low-copy-number Plasmids in *Escherichia coli*," *Journal of General Microbiology 133*: 1881-1889, 1987.
	BK		Chatfield et al., "The development of oral vaccines based on live attenuated *Salmonella* strains," *FEMS Immunology and Medical Microbiology 7*: 1-8, 1993.
	BL		Chatfield et al., "Evaluation of *Salmonella typhimurium* strains harbouring defined mutations in *htrA* and *aroA* in the murine salmonellosis model," *Microbial Pathogenesis 12*: 145-151, 1992.

EXAMINER	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	CB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

MJS	CC		Clouthier et al., "tRNA^{Arg} (*fimU*) and Expression of SEF14 and SEF21 in *Salmonella enteritidis*," *Journal of Bacteriology 180*(4): 840-845, February 1998.
	CD		Clouthier et al., "Characterization of Three Fimbrial Genes, *sefABC*, of *Salmonella enteritidis*," *Journal of Bacteriology 175*(9): 2523-2533, May 1993.
	CE		Clouthier et al., "Periplasmic and fimbrial SefA from *Salmonella enteritidis*," *Biochimica et Biophysica Acta 1387*: 355-368, 1998.
	CF		Cohen et al., "Structural Clues to Prion Replication," *Science 264*: 530-531, April 22, 1994.
	CG		Collinson et al., "Purification and Characterization of Thin, Aggregative Fimbriae from *Salmonella enteritidis*," *Journal of Bacteriology 173*(15): 4773-4781, August 1991.
	CH		Collinson et al., "Thin Aggregative Fimbriae from Diarrheagenic *Escherichia coli*," *Journal of Bacteriology 174*(13): 4490-4495, July 1992.
	CI		Collinson et al., "Thin, Aggregative Fimbriae Mediate Binding of *Salmonella enteritidis* to Fibronectin," *Journal of Bacteriology 175*(1): 12-18, January 1993.
	CJ		Collinson et al., "*Salmonella enteritidis agfBAC* Operon Encoding Thin, Aggregative Fimbriae," *Journal of Bacteriology 178*(3): 662-667, February 1996.
	CK		Collinson et al., "Structural Predictions of AgfA, the Insoluble Fimbrial Subunit of *Salmonella* Thin Aggregative Fimbriae," *J. Mol. Biol. 290*: 741-756, 1999.
	CL		Collinson et al., "The location of four fimbrin-encoding genes, *agfA*, *fimA*, *sefA* and *sefD*, on the *Salmonella enteritidis* and/or *S. typhimurium XbaI-BlnI* genomic restriction maps," *Gene 169*: 75-80, 1996.
✓	CM		Coulson et al., "Effect of different plasmids on colonization of mouse tissues by the aromatic amino acid dependent *Salmonella typhimurium* SL 3261," *Microbial Pathogenesis 16*: 305-311, 1994.

EXAMINER Vanessa Ford	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	DB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	DC		Cowan et al., "Crystallographic Studies on a Family of Cellular Lipophillic Transport Proteins," *J. Mol. Biol. 230*: 1225-1246, 1993.
	DD		Curtiss III. et al., "Recombinant *Salmonella* Vectors in Vaccine Development," *Developments in Biological Standardization 82*: 23-33, 1994.
	DE		de Graaf and Bakker, *Molecular Recognition in Host-Parasite Interactions*, Korbonen et al. (eds.), Plenum Press, New York, 1992, "Properties and Synthesis of K88 Fimbriae," pp. 39-46.
	DF		Der Vartanian et al., "Permissible peptide insertions surrounding the signal peptide-mature protein junction of the ClpG prepilin: CS31A fimbriae of *Escherichia coli* as carriers of foreign sequences," *Gene 148*: 23-32, 1994.
	DG		Der Vartanian et al., "An *Escherichia coli* CS31A fibrillum chimera capable of inducing memory antibodies in outbred mice following booster immunization with the entero-pathogenic coronavirus transmissible gastroenteritis virus," *Vaccine 15*(2): 111-120, 1997.
	DH		Doran et al., "DNA-Based Diagnostic Tests for *Salmonella* Species Targeting *agfA*, the Structural Gene for Thin, Aggregative Fimbriae," *Journal of Clinical Microbiology 31*(9): 2263-2273, September 1993.
	DI		Edwards et al., "Improved allelic exchange vectors and their use to analyze 987P fimbria gene expression," *Gene 207*: 149-157, 1998.
	DJ		Eshdat et al., "Dissociation and Reassembly of *Escherichia coli* Type 1 Pili," *Journal of Bacteriology 148*(1): 308-314, October 1981.
	DK		Evans et al., "Hemagglutination of Human Group A Erythrocytes by Enterotoxigenic *Escherichia coli* Isolated from Adults with Diarrhea: Correlation with Colonization Factor," *Infection and Immunity 18*: 330-337, 1977.

EXAMINER Vanessa Ford	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	EA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	EB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

MJ	EC		Feutrier et al., "Purification and Characterization of Fimbriae from *Salmonella enteritidis*," *Journal of Bacteriology 168*(1): 221-227, October 1986.
	ED		Fields et al., "Mutants of *Salmonella typhimurium* that cannot survive within the macrophage are avirulent," *Proc. Natl. Acad. Sci. USA 83*: 5189-5193, July 1986.
	EE		Firth et al., *Escherichia Coli and Salmonella*, Neidhardt et al. (eds.), ASM Press, Washington, D.C., 1996, Section C, Chapter 126, "Structure and Function of the F Factor and Mechanism of Conjugation," pp. 2377-2401.
	EF		Flynn et al., "Generation of a cytotoxic T-lymphocyte response using a *Salmonella* antigen-delivery system," *Molecular Microbiology 4*(12): 2111-2118, 1990.
	EG		Fullner et al., "Pilus Assembly by *Agrobacterium* T-DNA Transfer Genes," *Science 273*: 1107-1109, August 23, 1996.
	EH		Gaastra and De Graaf, "Host-Specific Fimbrial Adhesins of Noninvasive Enterotoxigenic *Escherichia coli* Strains," *Microbiological Reviews 46*(2): 129-161, June 1982.
	EI		Galán, J.E., "Molecular genetic bases of *Salmonella* entry into host cells," *Molecular Microbiology 20*(2): 263-271, 1996.
	EJ		Girardeau et al., "Sequence Analysis of the *clpG* Gene, Which Codes for Surface Antigen CS31A Subunit: Evidence of an Evolutionary Relationship between CS31A, K88, and F41 Subunit Genes," *Journal of Bacteriology 173*(23): 7673-7683, December 1991.
	EK		Girardeau and Bertin, "Pilins of fimbrial adhesins of different member species of Enterobacteriaceae are structurally similar to the C-terminal half of adhesin proteins," *FEBS Letters 357*: 103-108, 1995.
	EL		Gong and Makowski, "Helical Structure of P Pili from *Escherichia coli*," *J. Mol. Biol. 228*: 735-742, 1992.

EXAMINER [signature]	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	FA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	FB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

VFF	FC		Griffiths et al., "Cell adhesion molecules in bladder cancer: soluble serum E-cadherin correlates with predictors of recurrence," *British Journal of Cancer 74*: 579-584, 1996.
	FD		Ha et al., "Use of the green fluorescent protein as a marker in transfected *Leishmania*," *Molecular and Biochemical Parasitology 77*: 57-64, 1996.
	FE		Hackett, J., "Use of *Salmonella* for heterologous gene expression and vaccine delivery systems," *Current Opinion in Biotechnology 4*: 611-615, 1993.
	FF		Hamilton et al., "New Method for Generating Deletions and Gene Replacements in *Escherichia coli*," *Journal of Bacteriology 171*(9): 4617-4622, September 1989.
	FG		Hammar et al., "Nucleator-dependent intercellular assembly of adhesive curli organelles in *Escherichia coli*," *Proc. Natl. Acad. Sci. USA 93*: 6562-6566, June 1996.
	FH		Hammar et al., "Expression of two *csg* operons is required for production of fibronectin- and Congo red-binding curli polymers in *Escherichia coli* K-12," *Molecular Microbiology 18*(4): 651-670, 1995.
	FI		Hashimoto-Gotoh et al., "Specific-purpose plasmid cloning vectors I. Low copy number, temperature-sensitive, mobilization-defective pSC101-derived containment vectors," *Gene 16*: 227-235, 1981.
	FJ		Heck et al., "Three-Dimensional Structure of *Bordetella pertussis* Fimbriae," *Journal of Structural Biology 116*: 264-269, 1996.
	FK		Hedegaard and Klemm, "Type 1 fimbriae of *Escherichia coli* as carriers of heterologous antigenic sequences," *Gene 85*(1): 115-124, December 21, 1989.
V	FL		Ho et al., "The Pili of *Aeromonas hydrophila*: Identification of an Environmentally Regulated "Mini Pilin," *J. Exp. Med. 172*: 795-806, September 1990.

EXAMINER	DATE CONSIDERED
Vanessa Ford	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	GA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	GB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	GC		Hobohm and Sander, "A Sequence Property Approach to Searching Protein Databases," *J. Mol. Biol. 251*: 390-399, 1995.
	GD		Hone et al., "A chromosomal integration system for stabilization of heterologous genes in *Salmonella* based vaccine strains," *Microbial Pathogenesis 5*: 407-418, 1988.
	GE		Horton et al., "Engineering hybrid genes without the use of restriction enzymes: gene splicing by overlap extension," *Gene 77*: 61-68, 1989.
	GF		Hultgren et al., *Escherichia Coli and Salmonella, Cellular and Molecular Biology*, Neidhardt et al. (eds.), ASM Press, Washington, D.C., 1996, Chapter 150, "Bacterial Adhesins and Their Assembly," pp. 2730-2756.
	GG		Hultgren et al., "Pilus and Nonpilus Bacterial Adhesins: Assembly and Function in Cell Recognition," *Cell 73*: 887-901, June 4, 1993.
	GH		Hung et al., "Molecular basis of two subfamilies of immunoglobulin-like chaperones," *The EMBO Journal 15*(15): 3792-3805, 1996.
	GI		Ingmer and Cohen, "The pSC101 *par* Locus Alters Protein-DNA Interactions In Vivo at the Plasmid Replication Origin," *Journal of Bacteriology 175*(18): 6046-6048, September 1993.
	GJ		Jäger et al., "Expression of the *Bacillus subtilis sacB* Gene Leads to Sucrose Sensitivity in the Gram-Positive Bacterium *Corynebacterium glutamicum* but Not in *Streptomyces lividans*," *Journal of Bacteriology 174*(16): 5462-5465, August 1992.
	GK		Jardim et al., "Immunoprotective *Leishmania major* Synthetic T Cell Epitopes," *J. Exp. Med. 172*: 645-648, August 1990.
	GL		Jennings et al., "Fimbriae of *Bacteroides nodosus*: protein engineering of the structural subunit for the production of an exogenous peptide," *Protein Engineering 2*(5): 365-369, 1989.

EXAMINER	DATE CONSIDERED
	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	HA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	HB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	HC		Jones et al., "The three-dimensional structure of P2 myelin protein," *The EMBO Journal 7*(6): 1597-1604, 1988.
	HD		Jones et al., "The chaperone-assisted membrane release and folding pathway is sensed by two signal transduction systems," *The EMBO Journal 16*(21): 6394-6406, 1997.
	HE		Kaniga et al., "A wide-host-range suicide vector for improving reverse genetics in Gram-negative bacteria: inactivation of the *blaA* gene of *Yersinia enterocolitica*," *Gene 109*: 137-141, 1991.
	HF		Kisker et al., "A left-handed β-helix revealed by the crystal structure of a carbonic anhydrase from the archaeon *Methanosarcina thermophila*," *The EMBO Journal 15*(10): 2323-2330, 1996.
	HG		Klemm, P., "The *fimA* gene encoding the type-1 fimbrial subunit of *Escherichia coli*," *Eur. J. Biochem. 143*: 395-399, 1984.
	HH		Klemm and Krogfelt, *Fimbriae: Adhesion, Genetics, Biogenesis, and Vaccines*, Klemm (ed.), CRC Press, Boca Raton, 1994, Chapter 1, "Type 1 Fimbriae of *Eschericia coli*," pp. 9-26.
	HI		Kobe and Deisenhofer, "Crystal structure of porcine ribonuclease inhibitor, a protein with leucine-rich repeats," *Nature 366*: 751-756, December 1993.
	HJ		Korhonen et al., "New Method for Isolation of Immunologically Pure Pili from *Escherichia coli*," *Infection and Immunity 27*(2): 569-575, February 1980.
	HK		Kuehn et al., *Fimbriae: Adhesion, Genetics, Biogenesis, and Vaccines*, Klemm (ed.), CRC Press, Boca Raton, 1994, Chapter 3, "Structure, Function, and Biogenesis of *Escherichia coli* P Pili," pp. 37-51.
	HL		Kuehn et al., "P pili in uropathogenic *E. coli* are composite fibres with distinct fibrillar adhesive tips," *Nature 356*: 252-255, March 19, 1992.

EXAMINER	DATE CONSIDERED
Marianne Fraud	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	AB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

YH	AC		Lai and Kado, "Processed VirB2 Is the Major Subunit of the Promiscuous Pilus of *Agrobacterium tumefaciens*," *Journal of Bacteriology 180*(10): 2711-2717, May 1998.
	AD		Leathart and Gally, "Regulation of type 1 fimbrial expression in uropathogenic *Escherichia coli*: heterogeneity of expression through sequence changes in the *fim* switch region," *Molecular Microbiology 28*(2): 371-381, 1998.
	AE		Levi and Arnon, "Synthetic recombinant influenza vaccine induces efficient long-term immunity and cross-strain protection," *Vaccine 14*(1): 85-92, 1996.
	AF		Levine et al., *Fimbriae: Adhesion, Genetics, Biogenesis, and Vaccines*, Klemm (ed.), CRC Press, Boca Raton, 1994, Chapter 18, "Fimbrial Vaccines," pp. 255-270.
	AG		Levine et al., "Attenuated *Salmonella* as live oral vaccines against typhoid fever and as live vectors," *Journal of Biotechnology 44*: 193-196, 1996.
	AH		Lietzke et al., "The Three-Dimensional Structure of Pectate Lyase E, a Plant Virulence Factor from *Erwinia chrysanthemi*," *Plant Physiology 106*: 849-862, 1994.
	AI		Link et al., "Methods for Generating Precise Deletions and Insertions in the Genome of Wild-Type *Eschericia coli*: Application to Open Reading Frame Characterization," *Journal of Bacteriology 179*(20): 6228-6237, October 1997.
	AJ		Lintermans et al., "Isolation and Nucleotide Sequence of the F17-A Gene Encoding the Structural Protein of the F17 Fimbriae in Bovine Enterotoxigenic *Escherichia coli*," *Infection and Immunity 56*(6): 1475-1484, June 1988.
	AK		Locksley et al., "Susceptibility to Infectious Diseases: *Leishmania* as a Paradigm," *The Journal of Infectious Diseases 179*(suppl. 2): S305-S308, 1999.
✓	AL		Loferer et al., "Availability of the fibre subunit CsgA and the nucleator protein CsgB during assembly of fibronectin-binding *curli* is limited by the intracellular concentration of the novel lipoprotein CsgG," *Molecular Microbiology 26*(1): 11-23, 1997.

EXAMINER	Vanessa Ford	DATE CONSIDERED	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	BB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

MH	BC		Loric et al., "Enhanced Detection of Hematogenous Circulating Prostatic Cells in Patients with Prostate Adenocarcinoma by Using Nested Reverse Transcription Polymerase Chain Reaction Assay Based on Prostate-Specific Membrane Antigen," *Clin. Chem. 41*(12): 1698-1704, 1995.
	BD		Low et al., *Escherichia Coli and Salmonella, Cellular and Molecular Biology*, 2nd Edition, Neidhardt et al. (eds.), ASM Press, Washington, D.C., 1996, Chapter 11, "Fimbriae," pp. 146-157.
	BE		Manen et al., "The *par* region of pSC101 affects plasmid copy number as well as stability," *Molecular Microbiology 4*(11): 1839-1846, 1990.
	BF		Marceau et al., "High adhesiveness of encapsulated *Neisseria meningitidis* to epithelial cells is associated with the formation of bundles of pili," *Molecular Microbiology 17*(5): 855-863, 1995.
	BG		Marceau et al., "Consequences of the loss of O-linked glycosylation of meningococcal type IV pilin on piliation and pilus-mediated adhesion," *Molecular Microbiology 27*(4): 705-715, 1998.
	BH		McSorley et al., "Vaccine Efficacy of *Salmonella* Strains Expressing Glycoprotein 63 with Different Promoters," *Infection and Immunity 65*(1): 171-178, January 1997.
	BI		Meacock and Cohen, "Partitioning of Bacterial Plasmids during Cell Division: a Cis-Acting Locus That Accomplishes Stable Plasmid Inheritance," *Cell 20*: 529-542, June 1980.
√	BJ		Méchin et al., "Hydrophobic cluster analysis and secondary structure predictions revealed that major and minor structural subunits of K88-related adhesins of *Escherichia coli* share a common overall fold and differ structurally from other fimbrial subunits," *FEBS Letters 364*: 319-324, 1995.

EXAMINER Vanessa Ford	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	CB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

VJ	CC		Miller et al., "Role of DNA Superhelicity in Partitioning of the pSC101 Plasmid," *Cell 62*: 127-133, July 13, 1990.
	CD		Mol and Oudega, "Molecular and structural aspects of fimbriae biosynthesis and assembly in *Escherichia coli*," *FEMS Microbiology Reviews 19*: 25-52, 1996.
	CE		Morris et al., "Stereochemical Quality of Protein Structure Coordinates," *Proteins: Structure, Function, and Genetics 12*: 345-364, 1992.
	CF		Müller et al., "Fimbriation Genes of *Salmonella enteritidis*," *Journal of Bacteriology 171*(9): 4648-4654, September 1989.
	CG		Murzin et al., "SCOP: A Structural Classification of Proteins Database for the Investigation of Sequences and Structures," *J. Mol. Biol. 247*: 536-540, 1995.
	CH		Newton et al., "Expression and immunogenicity of an 18-residue epitope of HIV1 gp41 inserted in the flagellar protein of a *Salmonella* live vaccine," *Res. Microbiol. 146*: 203-216, 1995.
	CI		Newton et al., "Immune Response to Cholera Toxin Epitope Inserted in *Salmonella* Flagellin," *Science 244*: 70-72, April 7, 1989.
	CJ		Newton et al., "Expression and Immunogenicity of a Streptococcal M Protein Epitope Inserted in *Salmonella* Flagellin," *Infection and Immunity 59*(6): 2158-2165, June 1991.
	CK		Ogawa et al., "Antagonistic effect of synthetic peptides corresponding to the binding regions within fimbrial subunit protein from *Porphyromonas gingivalis* to human gingival fibroblasts," *Vaccine 15*(2): 230-236, 1997.
	CL		Olivier et al., "Modulation of Interferon-γ-induced Macrophage Activation by Phosphotyrosine Phosphatases Inhibition," *The Journal of Biological Chemistry* 273(22): 13944-13949, May 29, 1998.

EXAMINER	Vanessa Ford	DATE CONSIDERED	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL*		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	DB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	DC		Olsén et al., "The RpoS sigma factor relieves H-NS-mediated transcriptional repression of *csgA*, the subunit gene of fibronectin-binding curli in *Escherichia coli*," *Molecular Microbiology 7*(4): 523-536, 1993.
	DD		Pallesen and Klemm, *Fimbriae: Adhesion, Genetics, Biogenesis, and Vaccines*, Klemm (ed.), CRC Press, Boca Raton, 1994, Chapter 19, "Chimeric Fimbrial Vaccines," pp. 271-276.
	DE		Paranchych, W., *The Bacteria XI*, Academic Press, Inc., 1990, Chapter 4, "Molecular Studies on *N*-Methylphenylalanine Pili," pp. 61-78.
	DF		Paranchych and Frost, "The Physiology and Biochemistry of Pili," *Advances in Microbial Physiology 29*: 53-114, 1988.
	DG		Parker and Hodges, "Prediction of Surface and Interior Regions in Proteins – Part II: Predicting Secondary Structure in Regions Bound by Surface Exposed Regions," *Peptide Research 4*(6): 355-363, 1991.
	DH		Parker and Hodges, "Prediction of Surface and Interior Regions in Proteins – Part I: Linear Tripeptide Sequences Identify Structural Boundaries in Proteins," *Peptide Research 4*(6): 347-354, 1991.
	DI		Pickersgill et al., "The structure of *Bacillus subtilis* pectate lysase in complex with calcium," *Structural Biology 1*(10): 717-723, October 1994.
	DJ		Römling et al., "Curli Fibers Are Highly Conserved between *Salmonella typhimurium* and *Escherichia coli* with Respect to Operon Structure and Regulation," *Journal of Bacteriology 180*(3): 722-731, February 1998.
	DK		Römling et al., "Multicellular and aggregative behaviour of *Salmonella typhimurium* strains is controlled by mutations in the *agfD* promoter," *Molecular Microbiology 28*(2): 249-264, 1998.

EXAMINER	DATE CONSIDERED
Vanessa Ford	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	EA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	EB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	EC		Salmond, G.P.C., "Pili, peptidases and protein secretion: curious connections," *Trends in Microbiology 4*(12): 474-476, December 1996.
	ED		Shimizu and Morikawa, "The β-prism: a new folding motif," *TIBS 21*: 3-6, January 1996.
	EE		Shimizu et al., "Crystal structure of vitelline membrane outer layer protein I (VMO-I): a folding motif with homologous Greek key structures related by an internal three-fold symmetry," *The EMBO Journal 13*(5): 1003-1010, 1994.
	EF		Silverman, P.M., "Towards a structural biology of bacterial conjugation," *Molecular Microbiology 23*(3): 423-429, 1997.
	EG		Simons et al., "Morphological appearances of K88ab fimbriae and optical diffraction analysis of K88 paracrystalline structures," *FEMS Microbiology Letters 118*: 83-88, 1994.
	EH		Simons et al., "The penultimate tyrosine residue of the K99 fibrillar subunit is essential for stability of the protein and its interaction with the periplasmic carrier protein," *FEMS Microbiology Letters 67*: 107-112, 1990.
	EI		Sjöbring et al., "Plasminogen, absorbed by *Eschericia coli* expressing curli or by *Salmonella enteritidis* expressing thin aggregative fimbriae, can be activated by simultaneously captured tissue-type plasminogen activator (t-PA)," *Molecular Microbiology 14*(3): 443-452, 1994.
	EJ		Smyth et al., "Fimbrial adhesins: similarities and variations in structure and biogenesis," *FEMS Immunology and Medical Microbiology 16*: 127-139, 1996.
	EK		Spitzer et al., "Long-term protection of mice against *Leishmania major* with a synthetic peptide vaccine," *Vaccine 17*: 1298-1300, 1999.
	EL		Steinbacher et al., "Crystal Structure of P22 Tailspike Protein: Interdigitated Subunits in a Thermostable Trimer," *Science 265*: 383-386, July 15, 1994.

EXAMINER Marianna Ford	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	FA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	FB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

VJF	FC		Stentebjerg-Olesen, "Authentic display of a cholera toxin epitope by chimeric type 1 fimbriae: effects of insert position and host background," *Microbiology 143*: 2027-2038, 1997.
	FD		St. Geme III et al., "*Haemophilus influenzae* pili are composite structures assembled via the HifB chaperone," *Proc. Natl. Acad. Sci. USA 93*: 11913-11918, October 1996.
	FE		Strom and Lory, "Structure-Function and Biogenesis of the Type IV Pili," *Annu. Rev. Microbiol. 47*: 565-596, 1993.
	FF		Strugnell et al., "Stable expression of foreign antigens from the chromosome of *Salmonella typhimurium* vaccine strains," *Gene 88*: 57-63, 1990.
	FG		Sukupolvi et al., "Expression of Thin Aggregative Fimbriae Promotes Interaction of *Salmonella typhimurium* SR-11 with Mouse Small Intestinal Epithelial Cells," *Infection and Immunity 65*(12): 5320-5325, December 1997.
	FH		Sukupolvi et al., "Development of a Murine Model of Chronic *Salmonella* Infection," *Infection and Immunity 65*(2): 838-842, February 1997.
	FI		Tennent and Mattick, *Fimbriae: Adhesion, Genetics, Biogenesis, and Vaccines*, Klemm (ed.), CRC Press, Boca Raton, 1994, Chapter 9, "Type 4 Fimbriae," pp. 127-146.
	FJ		Thanassi et al., "The PapC usher forms an oligomeric channel: Implications for pilus biogenesis across the outer membrane," *Proc. Natl. Acad. Sci. USA 95*: 3146-3151, March 1998.
	FK		Thiry et al., "Cloning of DNA Sequences Encoding Foreign Peptides and Their Expression in the K88 Pili," *Applied and Environmental Microbiology 55*(4): 984-993, April 1989.
V	FL		Thorns et al., "The use of latex particle agglutination to specifically detect *Salmonella enteritidis*," *International Journal of Food Microbiology 21*: 47-53, 1994.

EXAMINER Vanessa Ford	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	GA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	GB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

MH	GC		Titus et al., "A limiting dilution assay for quantifying *Leishmania major* in tissues of infected mice," *Parasite Immunology 7*: 545-555, 1985.
	GD		van Der Zee et al., "P-fimbriae of *Escherichia coli* as carriers for gonadotropin releasing hormone: development of a recombinant contraceptive vaccine," *Vaccine 13*(8): 753-758, 1995.
	GE		van Die et al., "Expression of foreign epitopes in P-fimbriae of *Escherichia coli*," *Mol. Gen. Genet. 222*: 297-303, 1990.
	GF		Vanegas et al., "In a vaccine model, selected substitution of a highly stimulatory T cell epitope of hen's egg lysozyme into a *Salmonella* flagellin does not result in a homologous, specific, cellular immune response and may alter the way in which the total antigen is processed," *Vaccine 15*(3): 321-324, 1997.
	GG		Verma et al., "Induction of a cellular immune response to a defined T-cell epitope as an insert in the flagellin of a live vaccine strain of *Salmonella*," *Vaccine 13*(3): 235-244, 1995.
	GH		Verma et al., "Delivery of class I and class II MHC-restricted T-cell epitopes of listeriolysin of *Listeria moncytogenes* by attenuated *Salmonella*," *Vaccine 13*(2): 142-150, 1995.
	GI		Vidal et al., "Isolation of an *Escherichia coli* K-12 Mutant Strain Able To Form Biofilms on Inert Surfaces: Involvement of a New *ompR* Allele That Increases Curli Expression," *Journal of Bacteriology 180*(9): 2442-2449, May 1998.
	GJ		Wahle and Kornberg, "The partition locus of plasmid pSC101 is a specific binding site for DNA gyrase," *The EMBO Journal 7*(6): 1889-1895, June 1988.
V	GK		White et al., "High efficiency gene replacement in *Salmonella enteritidis*: chimeric fimbrins containing a T-cell epitope from *Leishmania major*," *Vaccine 17*: 2150-2161, 1999.

EXAMINER Vanegas Fred	DATE CONSIDERED 02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 920043.406	APPLICATION NO. 09/543,407
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT *(Use several sheets if necessary)*		APPLICANTS Aaron P. White et al.	
		FILING DATE April 5, 2000	GROUP ART UNIT 1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	HA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	HB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

NPF	HC		Whittaker et al., "Mechanisms of Adhesion by Oral Bacteria," *Annu. Rev. Microbiol. 50*: 513-552, 1996.
	HD		Wishart et al., "SEQSEE: a comprehensive program suite for protein sequence analysis," *Comput. Appl. Biosci. 10*(2): 121-132, 1994.
	HE		Wu et al., "Expression of immunogenic epitopes of hepatitis B surface antigen with hybrid flagellin proteins by a vaccine strain of *Salmonella*," *Proc. Natl. Acad. Sci. USA 86*: 4726-4730, June 1989.
	HF		Xu et al., "Protection against *Leishmania major* infection in genetically susceptible BALB/c mice by GP63 delivered orally in attenuated *Salmonella typhimurium* ($AroA^-$ $AroD^-$)," *Immunology 85*: 1-7, 1995.
V	HG		Yoder and Jurnak, "The parallel β helix and other coiled folds," *FASEB J. 9*(5): 335-342, March 1995.
	HI		
	HJ		
	HK		
	HL		
	HM		
	HN		
	HO		

EXAMINER	DATE CONSIDERED
Vanessa Ford	02/18/02

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).